

#### **REMARKS**

Claims 22-32 and 34-42 are pending in the present application. By this Amendment, previously presented claims 1 and 33 have been canceled. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendments and the following remarks.

Entry of the above amendments is proper under 37 C.F.R. §1.116 (a) in that the above amendments (1) place the claims in condition for allowance; (2) place the claims in better condition for consideration on appeal, if necessary; (3) do not raise any new issues; and (4) do not add new claims without canceling a corresponding number of claims.

It should be noted that the above amendments simply (1) correct a misspelled word within the original specification as noted in the March 15, 2010 final Office Action; and (2) cancel previously presented claims 1 and 33.

#### **I. Formal Matters:**

##### **Premature Final Rejection:**

For the reasons provided below, Applicants respectfully submit that the finality of the March 15, 2010 final Office Action is premature given that a clear issue has not been developed between Examiner Kaucher and Applicants with regard to the 102(e) rejection based on Heming. For at least this reason, Applicants respectfully request (1) withdrawal of the finality of the March 15, 2010 Office Action, and (2) if the 102(e) rejection based on Heming is maintained, identification of specific locations within the disclosure of Heming of the claim features recited in Applicants' independent claims 22 and 40 as discussed below.

##### **Restriction and Election of Species Requirement:**

As shown above, previously presented claims 1 and 33 have been canceled. However, as noted in Applicants' January 22, 2010 Amendment and Response, if independent claim 22 is found to be allowable, Applicants should be given the opportunity to add a claim identical to canceled claim 1 as instructed in MPEP §1893.03(d). In addition, as noted in Applicants' January 22, 2010 Amendment and Response, Applicants respectfully submits that if independent claim 22 is found to be allowable, Applicants should be given the opportunity to add a claim identical to canceled claim 33 given that the non-elected species recited in canceled claim

33 depend from independent claim 22.

Objection To Specification:

As shown above, Applicants have amended the original specification to replace “hydrochloride” with “hydrochloride.”

Rejection of Previously presented Claims 22-32 and 35-42 – Non-Statutory Obviousness-Type Double-Patenting In View of Claims 23-24 of U.S. Patent No. 7,199,185 (Heming)

Previously presented claims 22-32 and 35-42 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 23-24 of U.S. Patent No. 7,199,185 issued to Heming et al. (hereinafter, “Heming”).<sup>1</sup> This rejection is respectfully traversed for at least the reasons provided in Applicants’ January 22, 2010 Amendment and Response, and the reasons provided below.

As noted in Section 804 of the MPEP, the focus of a double patenting inquiry is on the claims of a given prior reference (e.g., a prior patent or application) and the claims of a pending application. In particular, Section 804 of the MPEP instructs:

Since the doctrine of double patenting seeks to avoid unjustly extending patent rights at the expense of the public, the focus of any double patenting analysis necessarily is on the claims in the multiple patents or patent applications involved in the analysis.

As discussed in Applicants’ January 22, 2010 Amendment and Response, claim 23 of Heming is directed to a microcapsule comprising an agrochemical active ingredient dispersed within a liquid core of the microcapsule, while claim 24 of Heming is directed to an oil-in-water emulsion comprising a discontinuous oil phase within a continuous aqueous phase.

Unlike claims 23-24 of Heming, claims 22-32 and 35-42 of the present invention are directed to particulate suspensions, namely, a liquid phase having suspended therein a solid substantially insoluble in the liquid phase, wherein the solid material is suspended in the liquid phase via a specific reaction product.

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<sup>1</sup> It should be noted that claim 34 is not mentioned in paragraph 14, but is mentioned in paragraph 15. It is difficult to tell whether claim 34 is being rejected under the under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 23-24 of Heming.

Given the divergent subject matter of (1) claims 23-24 of Heming and (2) claims 22-32 and 35-42 of the present invention, allowance of claims 22-32 and 35-42 of the present invention would not unjustly extend the patent rights of Syngenta, the owner of both sets of claims.

Applicants maintain the position that claims 23-24 of Heming are directed to the above-described microcapsules and oil-in-water emulsions, which are patentably distinct from Applicants' claimed particulate suspensions. In response to Applicants' position, Examiner Kaucher states the following on page 5, paragraph 21 of the March 15, 2010 final Office Action:

The emulsions and suspensions contain identical dispersants and solids. Furthermore, the examples use both emulsions and suspensions interchangeably. Additionally, claim 18 teaches suspended solids. Finally, copending claim 11 is directed towards suspensions.

Applicants disagree. As noted above, claim 23 of Heming is directed to a microcapsule comprising an agrochemical active ingredient dispersed within a liquid core of the microcapsule. Although Heming's microcapsule may be formed by similar materials as used to form the stabilizing reaction product recited in Applicants' claims, Heming's microcapsules do not comprise (i) a liquid phase, and (ii) a solid substantially insoluble in the liquid phase and suspended therein via (iii) the stabilizing reaction product. Further, although Heming's oil-in-water emulsions of claim 24 comprise a reaction product similar to the stabilizing reaction product recited in Applicants' claims, Heming's oil-in-water emulsions do not comprise (i) a liquid phase, and (ii) a solid substantially insoluble in the liquid phase and suspended therein via (iii) the stabilizing reaction product.

Regarding the above-mentioned statement, "Furthermore, the examples use both emulsions and suspensions interchangeably.", Applicants do not understand what Examiner Kaucher is referring to. Heming discloses the formation of oil-in-water emulsions, as well as suspensions, for example, in Example 10 (i.e., a suspension being a mixture of an emulsion with a suspension); however, Heming does not disclose, teach or suggest particulate suspensions as recited in Applicants' claims.

Regarding the above-mentioned statement, "Additionally, claim 18 teaches suspended solids.", Applicants note above that Heming's claimed microcapsules recite an agrochemical active ingredient dispersed within the liquid core of the claimed microcapsule.

Regarding the above-mentioned statement, "Finally, copending claim 11 is directed towards suspensions.", Applicants note that Heming's claim 11 is directed to a process of forming a suspoemulsion, not a particulate suspension as recited in Applicants' claims. (Also, it should be noted that Heming's claim 11 is not being used to reject Applicants' claims 22-33 and 35-42. Only Heming's claims 23-24 are being used in the obviousness-type double patenting rejection of pending claims 22-32 and 35-42.)

For at least the reasons provided in Applicants' January 22, 2010 Amendment and Response and the reasons provided above, Applicants respectfully request withdrawal of the obviousness-type double patenting rejection of pending claims 22-32 and 35-42 in view of claims 23-24 of Heming.

II. Prior Art Rejections:

Rejection of Previously Presented Claims 22-32 and 34-42 Under 35 U.S.C. §102(e) In View Heming

Previously presented claims 22-32 and 35-42 stand rejected under 35 U.S.C. §102(c) as being anticipated by Heming. This rejection is respectfully traversed for at least the reasons provided in Applicants' January 22, 2010 Amendment and Response, and the reasons provided below.

As noted in Applicants' January 22, 2010 Amendment and Response, the disclosure of Heming fails to disclose at least the following claim features recited in Applicants' independent claims 22 and 40:

(1) a particulate suspension comprising (a) a liquid phase, and (b) a solid substantially insoluble in the liquid phase and suspended therein via (c) a stabilizing reaction product comprising the reaction product of (i) a polymeric stabiliser having a hydrophilic moiety and a hydrophobic moiety and comprising a plurality of vinylic monomers, not being exclusively of vinylic esters or of their hydrolysed products, at least some of which contain functional groups capable of undergoing cross-linking nucleophilic or condensation reactions, and (ii) one or more substances contained in the liquid phase capable of undergoing a cross-linking reaction with the functional groups (claim 22); and

(2) a particulate suspension comprising (a) a liquid phase, and (b) a solid substantially insoluble in the liquid phase and suspended therein via (c) a suspension-stabilizing reaction

product as described above, wherein the ratio by weight of the polymeric stabiliser prior to cross-linking to the suspended solid is less than 1 part of polymeric stabiliser per 5 parts of suspended solid by weight (claim 22);

(3) a particulate suspension comprising (a) a liquid phase; (b) a reaction product of (i) a polymeric stabiliser having a hydrophilic moiety and a hydrophobic moiety and comprising a plurality of vinylic monomers, not being exclusively of vinylic esters or of their hydrolysed products, at least some of which contain functional groups capable of undergoing cross-linking nucleophilic or condensation reactions, and (ii) one or more substances contained in the liquid phase capable of undergoing a cross-linking reaction with said functional groups; and (c) an agrochemical solid that is substantially insoluble in the liquid phase and suspended within the liquid phase via the reaction product (claim 40); and

(4) a particulate suspension comprising (a) a liquid phase; (b) the above-described reaction product; and (c) an agrochemical solid, wherein the ratio by weight of the polymeric stabiliser prior to cross-linking to the suspended agrochemical solid is less than 1 part of polymeric stabiliser per 5 parts of suspended agrochemical solid by weight (claim 40).

Applicants note that the March 15, 2010 final Office Action does not point to any specific locations within the disclosure of Heming that conclusively discloses the above-noted claim features. For example, where does Heming disclose (i) an insoluble solid or an agrochemical solid suspended in (ii) a liquid phase via (iii) a stabilizing reaction product as recited in Applicants' independent claims 22 and 40? In addition, where does Heming disclose Applicants' claimed ratio of (1) stabilizing reaction product to (2) insoluble solid or agrochemical solid as recited in Applicants' independent claims 22 and 40?

The March 15, 2010 final Office Action refers Applicants back to paragraphs 11-18 of the October 22, 2009 Office Action. However, with regard to Applicants' claimed particulate suspension features, namely, (i) an insoluble solid or an agrochemical solid suspended in (ii) a liquid phase via (iii) a stabilizing reaction product, paragraphs 11-18 of the October 22, 2009 Office Action point Applicants to the Abstract, column 1, line 16 to column 2, line 24, and the Examples, none of which discloses Applicants' claimed combination of particulate suspension features. With regard to Applicants' claimed ratio of (1) stabilizing reaction product to (2) insoluble solid or agrochemical solid, paragraphs 11-18 of the October 22, 2009 Office

Action point Applicants to the Examples, in particular, example 7; however, example 7 does not disclose Applicants' claimed ratio of (1) stabilizing reaction product to (2) insoluble solid or agrochemical solid. In fact, example 7 of Heming does not even disclose an insoluble solid or agrochemical solid (i.e., s-metolachlor is a liquid, not a solid).

Given that (1) Applicants maintain the position that the disclosure of Heming fails to disclose the above-noted features recited in Applicants' independent claims 22 and 40 and (2) the March 15, 2010 final Office Action does not point to any specific locations within the disclosure of Heming that conclusively show that Heming discloses the above-noted claim features, Applicants respectfully submit that a clear issue has not been developed between Examiner Kaucher and Applicants with regard to the 102(e) rejection based on Heming.<sup>2</sup> As addressed in Section 706.07 of the MPEP, "Before final rejection is in order a clear issue should be developed between the examiner and applicant." For at least this reason, Applicants respectfully submit that the finality of the March 15, 2010 Office Action is premature. Accordingly, Applicants respectfully request (1) withdrawal of the finality of the March 15, 2010 Office Action, and (2) if the 102(e) rejection based on Heming is maintained, identification of specific locations within the disclosure of Heming of the above-noted claim features recited in Applicants' independent claims 22 and 40.

As noted in Applicants' January 22, 2010 Amendment and Response, since the disclosure of Heming fails to disclose each and every claim feature recited in Applicants' independent claims 22 and 40, the disclosure of Heming cannot anticipate independent claims 22 and 40. Since claims 23-32, 34-39 and 41-42 depend from independent claims 22 and 40, and recite additional claim features, the disclosure of Heming cannot anticipate dependent claims 23-32, 34-39 and 41-42. Accordingly, withdrawal of this rejection is respectfully requested.

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<sup>2</sup> Applicants also note that the March 15, 2010 final Office Action makes the following statement in each of paragraphs 8 and 11: "As to amended claim 34, example 4 discloses a polymer where c is about 0.4." It is not clear to Applicants what this is referring to given that the same statement is used in (1) the 102(e) rejection based on Heming, and (2) the 103(a) rejection based on Fryd (discussed below). A similar statement is also made in paragraph 15 with regard to the obviousness-type double patenting rejection based on claims 23-24 of Heming. For this additional reason, Applicants further submit that a clear issue has not been developed between Examiner Kaucher and Applicants.

Rejection of Previously Presented Claims 22-32, 34 and 39-42 Under 35 U.S.C. §103(a)  
In View Of U.S. Patent No. 6,262,152 (Fryd)

Previously presented claims 22-32, 34 and 39-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable in view of U.S. Patent No. 6,262,152 issued to Fryd et al. (hereinafter, “Fryd”). This rejection is respectfully traversed for at least the reasons provided in Applicants’ January 22, 2010 Amendment and Response, and the reasons provided below.

As discussed in Applicants’ January 22, 2010 Amendment and Response, the “Background” section of Applicants’ original specification describes in great detail the differences between the compositions of Fryd and Applicants’ claimed invention. See, for example, Applicants’ original specification, from page 1, line 3 to page 2, line 14, and from page 3, line 29 to page 4, line 32. One key difference between the compositions of Fryd and Applicants’ claimed particulate suspensions is Applicants’ claimed ratio by weight of “(a) the polymeric stabiliser prior to cross-linking to (b) the suspended solid” with Applicants’ claimed ratio being less than 1 part of polymeric stabiliser per 5 parts of suspended solid by weight. The teaching of Fryd fails to disclose, teach or suggest such a weight ratio for the disclosed polymer dispersant and solid in the compositions of Fryd.

As further discussed in Applicants’ January 22, 2010 Amendment and Response, the only teaching in Fryd regarding the ratio of polymer dispersant to solid is in the examples, wherein Fryd discloses a ratio of 10 parts of polymer dispersant to 15 parts of solid by weight in the following examples: Example 1, column 9, lines 2-3; Example 2, column 10, lines 35-36; Example 3, column 12, lines 7-8; Example 4, column 13, lines 30-31; Example 5, column 14, lines 53-54; and Example 6, column 16, lines 12-13. Fryd discloses a ratio of 1 part of polymer dispersant to 2.5 parts of solid by weight in Example 7, column 16, lines 35-36.

Given the above-noted teaching of Fryd regarding the weight ratio of polymer dispersant to solid, Applicants respectfully submit that the teaching of Fryd actually teaches away from Applicants’ claimed ratio of less than 1 part of polymeric stabiliser per 5 parts of suspended solid by weight. The teaching of Fryd appears to suggest to one skilled in the art the need to utilize a weight ratio of polymer dispersant to solid material of at least 1 part polymer dispersant to 2.5 parts solid material.

In response to Applicants’ January 22, 2010 Amendment and Response, the

March 15, 2010 final Office Action states the following in paragraph 23 on page 7:

The examiner acknowledges that the prior art is silent to the specific ratio, however, as stated in the previous office action, Fryd teaches the amount of particle (solid) “is not critical to the invention and can be as desired for the end use application” (3:28-35). Furthermore, Fryd teaches that the polymeric dispersant (polymer) is used to control the dispersibility of the solid (3:36-45). Thus, it is clear that the polymer and solid are result effective variables, and “discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill in the art.” See In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Also see MPEP 2144.05.

Applicants respectfully submit that even though Fryd discloses that the amount of solid material is not critical to the invention, this does not, in any way, suggest to one skilled in the art to utilize any particular weight ratio of polymer dispersant to solid material, and especially Applicants’ claimed ratio of less than 1 part of polymeric stabiliser per 5 parts of suspended solid. Fryd is simply stating that, in some applications, such as ink jet inks, a lower concentration of solid particulate material (and presumably a lower concentration of polymer dispersant) may be present in a given dispersion compared to, for example, a higher concentration of solid particulate material (and presumably a higher concentration of polymer dispersant) as found in paint compositions. Further, Applicants respectfully submit that a logical implication of the above-noted text from the teaching of Fryd is that when less solid material is used in a given dispersion (e.g., an ink jet ink), less polymeric dispersant will be needed to disperse the solid material. Conversely, when more solid material is used in a given dispersion (e.g., a paint composition), more polymeric dispersant will be needed to disperse the solid material.

What the above-noted portion of Fryd (i.e., column 3, lines 28-35) does not disclose, teach or suggest to one skilled in the art is a need or desire to increase the solid content relative to the amount of polymeric dispersant for any of Fryd’s disclosed dispersions, especially in view of the specific teaching of Fryd’s examples showing at least 1 part polymer dispersant to 2.5 parts solid material, and in most cases, 1 part polymer dispersant to 1.5 parts solid material.

As discussed above, the teaching of Fryd suggests to one skilled in the art to utilize a weight ratio of polymer dispersant to solid material of at least 1 part polymer dispersant to 2.5 parts solid material, and in most cases, 1 part polymer dispersant to 1.5 parts solid

material. The teaching of Fryd actually teaches away from Applicants' claimed weight ratio of less than 1 part of polymeric stabiliser per 5 parts of suspended solid as recited in each of Applicants' claims.

For at least the reasons given above, Applicants respectfully submit that the teaching of Fryd fails to make obvious Applicants' claimed invention as recited in independent claims 22 and 40. Since claims 23-32, 34, 39 and 41-42 depend from independent claims 22 and 40 and recite additional claim features, the teaching of Fryd also fails to make obvious Applicants' claimed invention as recited in claims 23-32, 34, 39 and 41-42. Accordingly, withdrawal of this rejection is respectfully requested.

Rejection of Previously Presented Claims 27 and 35-38 Under 35 U.S.C. §103(a) In View Of Fryd In Combination With Jankova

Previously presented claims 27 and 35-38 were rejected under 35 U.S.C. §103(a) as being unpatentable in view of Fryd and further in view of Jankova et al., Macromolecules, 1998, 31, 538-541 (hereinafter, "Jankova"). This rejection is respectfully traversed for at least the reasons provided in Applicants' January 22, 2010 Amendment and Response, and the reasons provided below.

As discussed in Applicants' January 22, 2010 Amendment and Response, Applicants respectfully submit that even if the proposed combination of the teaching of Fryd with the teaching of Jankova is deemed proper, the proposed combination of the teaching of Fryd with the teaching of Jankova fails to teach or suggest Applicants' claimed ratio of less than 1 part of polymeric stabiliser per 5 parts of suspended solid by weight as recited in independent claim 22.

For at least the reasons given in Applicants' January 22, 2010 Amendment and Response and above, the proposed combination of the teaching of Fryd with the teaching of Jankova fails to make obvious Applicants' claimed invention as recited in independent claim 22. Since claims 27 and 35-38 depend from independent claim 22 and recite additional claim features, the proposed combination of the teaching of Fryd with the teaching of Jankova also fails to make obvious Applicants' claimed invention as recited in claims 27 and 35-38. Accordingly, withdrawal of this rejection is respectfully requested.

III. Conclusion:

Applicants submit that claims 22-32 and 34-42 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

Should Examiner Kaucher believe that further action is necessary to place the application in better condition for allowance, Examiner Kaucher is respectfully requested to contact Applicants' representative at the telephone number listed below.

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 503025.

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